

REMARKS

This responds to the Office Action dated November 17, 2005. No claims are amended, cancelled, or added. As a result, claims 1-39 remain pending in this patent application.

§102 Rejection of the Claims

Claims 1, 15, 19, 22-25, 29, and 32 were rejected under 35 U.S.C. § 102(b) for anticipation by Thompson (U.S. Patent No. 6,083,248). Applicant respectfully traverses.

Concerning claims 1-32:

Applicant cannot find, among other things, in the cited portions of Thompson any disclosure of “at the implantable pulse generator device . . . divid[ing] the data into packets” and “apply[ing] header data to each packet that provides transport control information that controls the reconstruction of the data from the data packets,” as recited in claim 1, and similar language recited or incorporated in claims 2-32. The Office Action asserts:

The disclosed binary data packets are considered to anticipate the claimed data packets because both collect real time data from the implantable device and communicate to the base station.

(Office Action 2.) Applicant respectfully disagrees. The Office Action’s assertion relies on the following cited portion of Thompson:

When using the system to locate patients, the Contact Patient software module contains two identical arrays that form the binary data packets. While one packet is collecting real time data from the ADC 328 of implantable device 300 and the result of a GPS calculation, the other is communicating to the base station. Once every second the packets change function (commonly called double buffering). Real time displayed data is delayed by one second. The actual data transmission time depends on the amount of data, which is set by the digitization rate and the baud rate achieved over the wireless link between devices. Typically the table full of data would be transferred in a third of a second.

(Thompson at col. 17, lines 55-67.) Applicant respectfully submits that nothing in this cited portion of Thompson relates to applying, at the implantable pulse generator device, header data to each packet, wherein the header data provides transport control information that controls the reconstruction of the data from the data packets. Not only does the cited portion of Thompson apparently fail to mention “headers,” or “transport control information,” that controls

reconstruction of data from the data packets, the cited portion of Thompson actually appears to be carried out not at the implantable device, but instead appears to be carried out by an external patient communications control device 20 or 20', as clearly indicated by language appearing earlier in the paragraph from Thompson that was cited by the Office Action. (See Thompson at col. 17, lines 26-32 and FIG. 1, showing the device 20 as external to the patient 10.) Therefore, Applicant respectfully submits that the Office Action's reliance on Thompson is inapposite. The Office Action also asserts that Thompson discloses wirelessly transmitting from the implantable pulse generator device each of the packets having the header data. In so doing, the Office Action relies on the following cited portion of Thompson:

FIG. 1 is block level diagram of a first variation of the system of the invention for a patient having free ranging mobility including an implantable medical device, a patient communications control device and a medical support network optionally employing wireless satellite telecommunication and a global positioning satellite receiver.

(Thompson at col. 6, lines 45-55.) Applicant cannot find anything in this cited portion of Thompson that discloses wirelessly transmitting from the implantable pulse generator device each of the packets having the header data.

In sum, because Applicant cannot find all elements of claims 1-32 in the cited portions of Thompson, Applicant respectfully submits that no *prima facie* case of anticipation exists for claims 1-32. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

§103 Rejection of the Claims

1. Claims 3, 5, 8-9, 16, 18, 20-21, 26, 28 and 30-31 were rejected under 35 U.S.C. § 103(a) for obviousness over Thompson (U.S. Patent No. 6,083,248) in view of Lee (U.S. Published Application No. 2001/0031997A1). Applicant respectfully traverses.

As an initial note, claims 3, 5, 8-9, 16, 18, 20-21, 26, 28 and 30-31 variously depend from—and incorporate all the language of—-independent claims 1, 15, and 25. However, for the reasons discussed above with respect to the § 102 rejection, the cited portions of Thompson fail to disclose, teach, or suggest all elements recited in these claims, thereby vitiating any *prima facie* case of obviousness, which requires a disclosure, teaching, or suggestion of all claim

elements. Moreover, although the Office Action admits that Thompson fails to disclose use of TCP network protocol, Applicant respectfully submits that Lee does not cure the deficiencies of Thompson as noted with respect to the § 102 rejection. The Office Action cites the following portions of Lee as using the TCP network protocol:

[0044] In addition to remote medical devices 124, interface medical unit 116 may also effect interfacing or collaborative communications sessions with telecommunications or data communications devices 126. These may include, without limitation, personal digital assistant (PDA) 138, cellular or wired telephone 140, pager 142, or remote clinician computer 144. Like remote medical devices 124, the network location, network address, dial-up phone number, or other nodal or location information of communications devices 126, are preferably stored in data storage media 134 in order to be accessed by central collaboration computer 120. Because some collaboration that users wish to effect over collaboration network 114 may be voice communication, collaboration network 114 and central collaboration computer 120 are capable of transmitting and routing voice communications, e.g., voice communication data packetized and transmitted using the TCP/IP protocol (voice over IP). In some cases, direct dial-up voice communication over Plain Old Telephone Service may be effected or facilitated using the central location and availability logging of central collaboration computer 120 together with automated dialing by central collaboration computer 120.

[0056] Upon establishment of a network connection, or direct dial-up connection, a communications link is established over which the interface medical device 116 may establish a connection with the central collaboration computer 120. Communication over collaboration network 114 may be effected by way of a TCP/IP connection, particularly one using the Internet, as well as a PSTN, DSL, ISDN, Cable Modem, LAN, WAN, MAN, direct dial-up connection, a dedicated line, or a dedicated terminal connection to a mainframe. The initial communication may focus on authentication of the interface medical device 116. This will preferably include verification that the interface medical device 116 is certified for interrogating IMDs, i.e., a verification process has established that the software and hardware revisions are current, and that the authentication information uniquely identifies a specific known interface medical device 116.

(Lee at ¶¶ 44, 56.) However, these cited portions of Lee apparently deal with using an interface medical device 116, which, as shown in FIG. 1, is an external device that is separate from the implantable medical device 112. Therefore, Applicant respectfully submits that Lee's use of the TCP network protocol is not "at the implantable pulse generator device," as recited or incorporated in claims 3, 5, 8-9, 16, 18, 20-21, 26, 28 and 30-31, as discussed above with respect to the § 102 rejection. Accordingly, because all elements are apparently not disclosed, taught, or

suggested by Thompson and/or Lee, Applicant respectfully submits that no *prima facie* case of obviousness exists with respect to these claims. Therefore, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

2. Claims 4, 17 and 27 were rejected under 35 U.S.C. § 103(a) for obviousness over Thompson (U.S. Patent No. 6,083,248) in view of Nelson et al. (U.S. Published Application No. 2001/0023360A1). Applicant respectfully traverses.

As an initial note, claims 4, 17 and 27 variously depend from—and incorporate all the language of—-independent claims 1, 15, and 25. However, for the reasons discussed above with respect to the § 102 rejection, the cited portions of Thompson fail to disclose, teach, or suggest all elements recited in these claims, thereby vitiating any *prima facie* case of obviousness, which requires a disclosure, teaching, or suggestion of all claim elements. Moreover, although the Office Action admits that Thompson fails to disclose use of the UDP protocol, Applicant respectfully submits that Lee does not cure the deficiencies of Thompson as noted with respect to the § 102 rejection. The Office Action cites the following portions of Lee as using the TCP network protocol:

[0057] FIG. 3 depicts an alternate implementation of the system depicted in FIG. 1, including additional hardware devices. As shown in greater detail in FIG. 3, once the data is collected from the IMDNI 116, notifications or confirmations may be generated by remote interrogator 220. These notifications may in desired cases be made available to remote data devices 310, such as a remote computer 312, fax machine 314, cellular telephone 316, or other data device which may be operated by or for individuals or entities interested in the target IMD 112 operation or host patient data. The data may also be provided to remote patient in-home personal computer 318. Preferably, these notifications may be accompanied by relevant data, and are made only to devices or individuals that have been properly authenticated as having permission to view the patient data. In addition, and particularly when provided to a remote computer 312 or 318, this data is preferably encrypted or digitally signed to preserve its confidentiality and for confirmation of data integrity. Various data communications methods may be suitable for transmission of the target device and host patient data to a remote computer, including an SMTP e-mail, UDP, FTP, or TCP/IP. In one embodiment of the present invention for example, properly authenticated interested parties may access the patient or device data, the data residing on a server such as the remote interrogator, via TCP/IP protocol using a web browser. It is also preferable that confirmation that the data has been retrieved successfully by the remote interrogator 220, or has been transmitted to a particular remote user such as a

physician using remote computer 310, is transmitted to the site of collection and displayed on the IMDNI 116, or on a computer or other data device such as patient home computer 318. A confirmation that a remote clinician, for example, a clinician that is located somewhere other than the site of the IMDNI data collection point, or from the remote interrogator 220, has accessed the data via remote computer 310, may be transmitted to the site of collection 116 or to another location or device 310 or 318. This confirmation may be effected, for example, by a reply e-mail from a clinician that has received an SMTP message from remote interrogator 220, indicating that the data has been received or reviewed.

(Nelson ¶ 57.) Viewed in context, the cited portion of Nelson really refers to things happening outside of the IMD 112. For example, the cited paragraph discusses things happening “once the data is collected from the [external] IMDNI 116” and notes that “notifications or confirmations may be generated by the [external] remote interrogator 220.” (*See id.*) Thus, in context, the UDP of Nelson is apparently carried out by an external device. Therefore, Applicant respectfully submits that Nelson’s use of the UDP protocol is not “at the implantable pulse generator device,” as recited or incorporated in claims 4, 17 and 27, as discussed above with respect to the § 102 rejection. Accordingly, because all elements are apparently not disclosed, taught, or suggested by Nelson and/or Lee, Applicant respectfully submits that no *prima facie* case of obviousness exists with respect to these claims. Therefore, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

3. Claims 33-39 were rejected under 35 U.S.C. § 103(a) for obviousness over Thompson (U.S. Patent No. 6,083,248) in view of Sarwal et al. (U.S. Patent No. 6,662,052). Applicant respectfully traverses.

Applicant cannot find in the cited portions of Thompson and/or Sarwal any disclosure, teaching, or suggestion of, among other things: (1) “establishing a second transport layer connection between the repeater and the implantable pulse generator over the wireless connection;” and (2) “transferring the first data packet with second transport control header information from the repeater to the implantable pulse generator over the second transport layer connection” as recited or incorporated in claims 33-36.

Similarly, Applicant cannot find in the cited portions of Thompson and/or Sarwal any disclosure, teaching, or suggestion of, among other things, “a second transport layer connection

[that] is established between the repeater and the implantable pulse generator,” as recited or incorporated in claims 37-39.

Admitting that Thompson fails to disclose the claimed transport layers and connections, the Office Action asserts:

However, Sarwal teaches a method and system of transferring data between a data network and implantable medical device utilizing transport layer connections to transfer data in packets (see col. 14, ln. 35-45 and col. 15, ln. 1-6, Sarwal).

(Office Action at 6.) However, the cited portions of Sarwal merely states:

The telecommunications component of this invention uses Wireless Application Protocol (WAP). The Wireless Application Protocol (WAP) is a set of communication protocols standardizing Internet access for wireless devices. Previously, manufacturers used different technologies to get Internet on hand-held devices. With WAP, devices and services interoperate. WAP promotes convergence of wireless data and the Internet. The WAP Layers are Wireless Application Environment (WAEW), Wireless Session Layer (WSL), Wireless Transport Layer Security (WTLS) and Wireless Transport Layer (WTP). . . .

A lightweight protocol stack 402 which minimizes bandwidth requirements, guaranteeing that a broad range of wireless networks can run WAP applications. The protocol stack of WAP can comprise a set of protocols for the transport (WTP), session (WSP), and security (WTLS) layers.

(Sarwal at col. 14, lines 35-45 and col. 15, lines 1-6.) Applicant can find nothing in these cited portions of Sarwal that disclose, teach, or even suggest using a transport layer connection established between a repeater and an “implantable” pulse generator, as recited or incorporated in the present claims. Instead, Sarwal indicates that the WAP is shown schematically in Sarwal’s FIG. 20, which merely illustrates communication between an external handheld device 42 and an external remote device 500. Similarly, although Sarwal apparently discloses using WAP for communicating with telemetry 180 of a stimulator 152, that stimulator 152 is apparently an external device—not an implantable device. (See Sarwal at col. 10, line 49 – col. 11, line 6.)

Accordingly, because Thompson and/or Sarwal apparently do not disclose, teach, or even suggest all elements recited or incorporated in claims 33-39, Applicant respectfully submits that no *prima facie* case of obviousness exists with respect to these claims. Therefore, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

Reservation of Rights

Applicant reserves the right to swear behind any references which are cited in a rejection under 35 U.S.C. 102(a), 102(e), 103/102(a), and 103/102(e), such as provided under 37 C.F.R. § 1.131 or otherwise. Statements distinguishing the claimed subject matter over the cited documents are not to be interpreted as admissions that the documents used as references are prior art.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6951 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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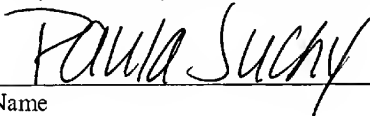
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